(1) # EU-Type-Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3)	**Certificate Number**	**TÜV CY 21 ATEX 0206450 X**
(4)	for the equipment:	Three-phase Asynchronous Electrical Motors Type: AX*****; JM*****; GM*****; JMD*****; GMD*****
(5)	of the manufacturer:	**SEIPEE S.p.A.**
(6)	Address:	Via Ferrari, 4 - 41011 Campogalliano (MO) - ITALY
	Order number:	0206450
	Date of issue:	2021-09-23

(7) The design of this equipment or protective system and any acceptable variation thereto are specified in the schedule to this EU-Type-Examination Certificate and the documents therein referred to.

(8) TÜV CYPRUS Ltd, notified body No. 2261 in accordance with Article 17 of the Council Directive of 2014/34/EU of February 26, 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential report No. 21 0206450.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018 **EN 60079-7:2015** **EN 60079-31:2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type-Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment which are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:

II 3G Ex ec IIC T4 Gc, and/or
II 3D Ex tc IIIC T135°C Dc

TÜV CYPRUS Ltd (TUV NORD Group),
The head of the notified body,

D. Demosthenous

notified body TÜV CYPRUS TÜV NORD GROUP 2261

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(13) SCHEDULE

(14) EU-Type-Examination Certificate No. TÜV CY 21 ATEX 0206450 X

(15) Description of equipment

The three-phase asynchronous motors types **AX*****, **JM*****, **JMD*****, sizes 56, 71, 80, 90, 100, 112, 132, 160mm are made of aluminium alloy material enclosures, terminal boxes and shields.

The three-phase asynchronous motors types **GM***** and **GMD*****, sizes 160, 180, 200, 225, 250, 280, 315, 355mm are made of cast iron material enclosures, terminal boxes and shields.

Motor enclosures and terminal boxes are designed in Ex-ec type of protection. The motor and terminal box enclosures satisfy also the Ex-tc type of protection, mechanical protection degree IP65.

The motors can be equipped with auxiliary devices separately certified: encoders and motor-fan for ventilation.

The motor supplied by inverter is equipped inside of stator winding with PTC or PT100 thermal detectors for temperature control. Rating data are specified on supplementary nameplate and safety instruction.

According to IEC 60034-6 standard, the cooling is achieved by one of the following methods:

- Self-cooled motor by fan fitted on shaft, IC411;
- Fan directly coupled, IC418;
- Totally enclosed not ventilated, IC410;
- Forced ventilation by means of auxiliary motor, IC416.

The operation of the primary motor shall be interlocked to the correct operation of the forced ventilation.

The accessories used for cable entry and for the unused holes shall be separately certified according to the applicable type of protection and shall guarantee the minimum degree of protection.

Identification code:

*	*	*	*	*	*	
						Pos. 1 = Motor series
						Pos. 2 = Motor size
						Pos. 3 = Frame length
						Pos. 4 = Stator core length
						Pos. 5 = Polarity number
						Pos. 6 = Mounting arrangements

***Pos.1**: Motor series*

JM, AX	*Three phase motor alluminium alloy frame*
JMD	*Three phase motor alluminium alloy frame double polarity*
GM	*Three phase motor cast iron frame*
GMD	*hree phase motor cast iron frame double polarity*

***Pos.2** : Motor size*

56	*Motor size 056*	***160***	*Motor size 160*
63	*Motor size 063*	***180***	*Motor size 180*
71	*Motor size 071*	***200***	*Motor size 200*
80	*Motor size 080*	***225***	*Motor size 225*
90	*Motor size 090*	***250***	*Motor size 250*
100	*Motor size 100*	***280***	*Motor size 280*
112	*Motor size 112*	***315***	*Motor size 315*
132	*Motor size 132*	***355***	*Motor size 355*

***Pos.3** : Frame length*

S	*Short frame*	***L***	*Long frame*
M	*Medium frame*	***X***	*Extra long frame*

***Pos.4** : Stator core length*

A	*Medium iron core*
B	*Long iron core*
C	*Extra long iron core*

***Pos.5** : Polarity number*

2	*2 pole*	***2/4***	*2/4 pole*
4	*4 pole*	***4/6***	*4/6 pole*
6	*6 pole*	***4/8***	*4/8 pole*
8	*8 pole*		

***Pos.6** : Mounting arrangements*

B3	*With feet*	***B35***	*With feet and flange*
B5	*With flange*	***B34***	*With feet and small flange*
B14	*With small flange*		

*Code example for motor: **JM 132 MA 4 B5** = Three phase motor 2G - Ex ec IIC T3 Gb, frame size 132, - Ex tc IIIC T135°C Dc, frame size 132, Medium iron core, 4 pole*

Ratings:
Main supply:

- Maximum rated voltage: 1000 V
- Maximum rated power: 450 kW
- Maximum current: 740 A
- Rated frequency: 50 / 60 Hz
- Insulation class: F (with ΔT class B)
- Duty: S1, S2, S3, S4, S6, S9
- Max. rated speed: 3600 r.p.m

Inverter supply:

- Maximum rated voltage: 1000 V
- Maximum peak voltage: 2300 V
- Maximum current: 740 A
- Max. rated speed: 3960 rpm
- Duty: S9

Allowable ambient temperature range:
-20°C to +50°C

Warning label:

The following warnings are applied to the motor:
"Warning – potential electrostatic charging hazard – see instructions"

On the cover of the junction box:
A warning sticker is applied, which means do not open when energized

(16) Test documents are listed in the test report No. 21 0206450.

Routine tests:
A dielectric strength test shall be carried out on Ex-ec junction box in accordance with Clause 6.1 of EN 60079-7:2015 Ed. 5, with voltage (2Un+1000)V in period of at least 60 s or 1.2x(2Un+1000)V at least 100 ms.

(17) Special conditions for safe use

- The motor can be equipped with auxiliary devices: encoders and motor-fan for ventilation. Auxiliary devices shall be separately certified and be suitable for the installation zone.
- After connecting the motor, the terminal box must be sealed with sealant for gasket. The information of sealant into the use and maintenance manual.
- For installation in areas with presence of gas group IIC, when motors are painted with a maximum thickness of paint exceeding 0.2mm, shall be taken into account the risk of electrostatic charges.
- The accessories used for cable entry and for the unused holes shall be separately certified according to the applicable type of protection and shall guarantee the minimum degree of protection.
- When the motor is supplied by inverter, the stator winding is equipped with PTC or PT100 thermal detectors for temperature control. The intervention of the thermal detector shall guarantee the disconnection of the supply, the resetting of the supply shall not be automatic.
- Anti-condensation heaters operating is admitted only when motor is not running.

(18) Essential Health and Safety Requirements

No additional ones. Assured by compliance with the standards set out in the [9].