IEP | ENERGY PETROLEUM INSTITUTE

IEP ATEX

Supplement Nr: 01

(1) Type Examination Certificate

(2) Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres

Directive 2014/34/EU

(3) Type Examination Certificate Number: **IEP 23 ATEX 1306X**

(4) Equipment: **XZL and XZG... Types, Three Phase Induction Motor**

(5) Firm Name: **ELK MOTOR SANAYİ VE TİCARET A.Ş.**

(6) Firm Address: **Yildirim Beyazit OSB Mah. 7. Sok. No:71/1 Çerkezköy / Tekirdağ, TÜRKİYE**

(7) This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti., 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 category 3 equipment, which is intended for use in potentially explosive atmospheres, given in Annex II to the Council Directive 2014/34/EU. The examination and test results are recorded in confidential Report Nr: IEP.Rp.Ex.10-2652-1 date 07.02.2024.

(9) Compliance with 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 product is subject to Specified Conditions of Safe Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.

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

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIC (T120°C ~ T140°C) Dc

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

ENERGY PETROLEUM INSTITUTE * INSPECTION AND CERTIFICATION * IEP ATEX

Supplement 01 Date of Issue : 09.02.2024

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(13) Schedule

(14) Certificate Nr: **IEP 23 ATEX 1306X**

(15) Description of Equipment: These electric motors are made of aluminum with squirrel cage rotors, foot and/or flange mounted for horizontal and vertical mounting and with frame sizes from 63 to 315. The main features of the motors are closed type machine, frame in cast iron and aluminum material including the cooling ribs, rolling bearings, self-ventilation or forced ventilation by external fan, or without ventilation. The motors are made with interconnected compartments for motor and for terminal box. The motors and its terminal box are designed in compliance with type of protections "Ex ec" and/or "Ex tc".

The permissible ambient temperature range is -40 °C to + 60 °C. Temperature class range can be controlled by temperature sensor. Parts used in motors are available in table 2/ 3/ 4 dated 17.10.2023. Motor user manual consists of 31 pages and dated 06.11.2023. The XZL and XZG … types, three phase induction motors are intended for use Zone 2 and Zone 22 area and IIC (included IIA, IIB) gas group and IIIC (included IIIA, IIIB) dust group in hazardous locations according to EN 60079-10-1 and EN 60079-10-2 standards.

Electrical data:

Power	: 0,12 ~ 200 kW
Frequency	: 50 Hz or 60 Hz or 5Hz-100Hz frequency supplied with by converter
Voltage	: Up to 1000V AC
Number of Phases	: 3 ~
Ambient Temperature	: -40°C ~ +60°C
Protection Class	: IP55/IP56/IP65/IP66
Insulation Class	: F or H Class
Thermal cut-off rating	: 120°C ~ 140°C
Pole	: 2/4/6
Duty	: S1-S9

Mechanical data:

Bearings	: Deep grove ball bearing (-2Z, -Z, 2RS, -RS, without cover for greasing), NU, NUP, NJ
Shaft Material	: AISI 1050, AISI 1045, stainless steel (400 and 300 series)

Housing, Flange and Terminal Box Material:

For 63-71-80 frame motors housing, terminal box, terminal box cover, DE and NDE side B3 flange, B5 flange and B14 flange materials can be use aluminum (EN AC 44300, EN AC 44500, EN AC 46100, EN AC 46200 and etc.)

For 90-100-112-132-160 frame motors housing, terminal box, terminal box cover, DE and NDE side B3 flange, B5 flange, B14 flange and foot material can be use aluminum (EN AC 44300, EN AC 44500, EN AC 46100, EN AC 46200 and etc), gray cast iron (EN GJL 180, EN GJL 200, EN GJL 220, EN GJL 250 and etc.) and nodular cast iron (EN GJS 180, EN GJS 200, EN GJS 220, EN GJS 250 and etc.).

180-200-225-250 frame motors housing, terminal box, terminal box cover, DE and NDE side B3 flange, B5 flange and foot material can be use aluminum (EN AC 44300, EN AC 44500, EN AC 46100, EN AC 46200 and etc), gray cast iron (EN GJL 180, EN GJL 200, EN GJL 220, EN GJL 250 and etc.) and nodular cast iron (EN GJS 180, EN GJS 200, EN GJS 220, EN GJS 250 and etc.)

280-315 frame motors housing, terminal box, terminal box cover, DE and NDE side B3 flange, B5 flange and foot material can be use gray cast iron (EN GJL 180, EN GJL 200, EN GJL 220, EN GJL 250 and etc.) and nodular cast iron (EN GJS 180, EN GJS 200, EN GJS 220, EN GJS 250 and etc.).

Accessory	: Encoder, External Fan, Brake, Canopy, NDE Shaft Extension, Backstop
Cooling Methods	: IC410, IC411, IC416, IC418

Responsible Person:

Nurettin Terzioglu
Head of Certification Body