

## **Type Approval Extension Certificate**

This is to certify that Certificate No. 16/00038 for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

**PRODUCER** ELECTRO ADDA S.p.A.

Via Nazionale, 8

23883 Beverate di Brivio (LC)

Italy

ELECTRO ADDA S.p.A. **PLACE OF** 

**PRODUCTION** Via Nazionale, 8

23883 Beverate di Brivio (LC)

Italy

DESCRIPTION Three Phases Asynchronous Motors

**TYPE** horizontal shaft line: C2A C3A C4

> vertical shaft line: FC2A FC3A FC4

APPLICATION Marine, Offshore and Industrial use.

**SPECIFIED** IEC 60034-1:2010 **STANDARDS** IEC 60034-2-1:2014

(IEC 60034-30:2008) IEC 60034-30-1:2014

Lloyd's Register Rules and Regulation for the Classification of Ships, 2015

- Part 6, Chapter 2, Section 9

**RATINGS** Rated Power [kW]:  $0.75 \div 200$ 

> $220 \div 690$ Rated Voltage [V]: 50 / 60 Rated Frequency [Hz]:

or Frequency Converter Fed

Certificate No. 16/00038(E1)

**Issue Date** 18 April 2017

**Expiry Date** 13 June 2021

Sheet 1 of 2 Antonio Calonico - Specialist

18 April 2017

Marine, Trieste Technical Support Office

Lloyd's Register EMEA

A. Calonico

Trieste Technical Support Office Lloyd's Register EMEA

Lloyd's Register EMEA

Southampton Boldrewood Innovation Campus, Burgess Road, Southampton SO16 7QF

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Efficiency Classes: IE2 (C2A, FC2A)

IE3 (C3A, FC3A)

IE4 (C4, FC4)

Shaft Height [mm]:  $80 \div 315$ Poles Number: 2-4-6Insulation Class: F

Degree of Protection IP 55 or IP 56

Duty Type S1

Frame A – Aluminium ; S – Steel Shields Aluminium or Cast Iron

**RANGE** As per Manufacturer's Data Sheet

## OTHER CONDITIONS

- Temperature Rise for Lloyd's Register application have to be within insulation class F limits, as per Lloyd's Register Rules and Regulation for the Classification of Ships, 2015 Part 6, Chapter 2, Section 9.
- Temperature Rise for Power Frequency applications satisfies class B limits, except for C2A 225 MT 2 poles, within class F limit.
- Motors suitable for Inverted-Fed application, without any needs of power de-rating. Temperature Rise within class F limits.
- Motors rated 100 kW and above intended for Lloyd's Register application have to satisfy the additional requirements as specified in the LR Rules and Regulation for the Classification of Ships, Part 6, Chapter 2.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No.16/00038(E1) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 16/00038 to which this extension should be attached.

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Sheet 2 of 2

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