



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Electro Adda spa
Address	Via Nazionale 8, Beverate Di Brivio Lc, 23883, Italy
Type	Electric Motors
Description	Three phase asynchronous motors IE2 (High), IE3 (Premium), IE4 (Super-premium) efficiency classes
Trade Name	C2A, C3A, C4 (horizontal shaft line) and FC2A, FC3A, FC4 (vertical shaft line)
Application	Marine, Offshore and Industrial use.
Specified Standard	IEC 60034-1:2017 IEC 60034-2-1:2014 IEC 60034-6:1991 IEC 60034-30-1:2014 Lloyd's Register Rules and Regulation for the Classification of Ships (2020), Part 6, Chapter 2, Section 9 Lloyd's Register Rules and Regulation for the Classification of Naval Ships (2020), Volume 2, Part 9

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Ratings

See Appendix

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.

Previous Version: LR2024948TA-01.

The Design Appraisal Document LR25252074DA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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APPENDIX to Certificate no. LR2525207TA

RATINGS:

Rated Power [kW]	0.75 ÷ 200
Rated Voltage [V]:	220 ÷ 690
Rated Frequency [Hz]	50 / 60 or variable up to 200kW
Efficiency Classes	IE2 (C2A, FC2A) IE3 (C3A, FC3A) IE4 (C4, FC4)
Shaft height [mm]	80 ÷ 315
Poles Number	2, 4, 6, 8
Insulation class	F
Degree of protection	IP55 or IP56
Duty type	S1
Frame	Aluminium or Cast Iron or Fabricated steel
Cooling codes	IC411 and IC416
Reference ambient temperature	45°C

Low magnetic signature version material details:

Frame, bells, feet, flange	Aluminium or Stainless steel
Fan cowl, external fan, terminal boxes	Aluminium or Stainless steel
Screw and nuts	Stainless steel
Shaft and key	AISI 316 (Carbon steel for two pole central core)
Nameplate and pins	Stainless steel
Regreasing pipes	Stainless steel
Cable glands (if provided)	Stainless steel
Terminal box blinding plugs (if provided)	Stainless steel