



**TYPE APPROVAL CERTIFICATE**  
No. ELE010212XG/001

**This is to certify** that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	<b>THREE-PHASE INDUCTION MOTORS</b>
<i>Type</i>	<b>M3AA 160 - M3AA 280</b>
<i>Applicant</i>	<b>ABB AB - LV MOTORS ORJANSGRAND 31 SE-72170 VASTERÅS SWEDEN</b>
<i>Manufacturer</i>	<b>ABB AB - LV MOTORS</b>
<i>Place of manufacture</i>	<b>ORJANSGRAND 31 SE-72170 VASTERÅS SWEDEN</b>
<i>Reference standards</i>	<b>IEC 60034-1; RINA Rules Part C, Chapter 2, Section 4.</b>

Issued in **HAMBURG** on **January 27, 2012**. This Certificate is valid until **January 26, 2017**

RINA  
**Daniele Chirulli**

This certificate consists of this page and 1 enclosure



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**Enclosure - Page 1 of 1**

**M3AA 160 - M3AA 280**

**Product description:** **Three-phase aluminum cage induction motors  
Type M3AA 160 ... up to M3AA 280 ...**

**Technical data:**

Sizes: MLA, MLB, MLC, MLD, MLE, SMA, SMB, SMC, SMD  
Number of poles: 2; 4; 6; 8 for single speed motors  
2/4; 4/6; 4/8 for two speed motors & two speed motors for fan  
Rated voltage: 220 V up to 690 V  
Rated frequency: 50 Hz; 60 Hz  
Duty type: S1, S2-30 min; S6-25%; S6-40%; S6-60%  
Rated power:  
S1 4 kW up to 99 kW  
S2-30 min up to 137 kW  
S6-25% up to 143 kW  
S6-40% up to 143 kW  
S6-60% up to 120 kW  
Degree of protection: IP 55  
Ambient temperature: 50° C  
Insulation class: F (155° C)

**Documents:**

- Bureau Veritas Certification for ISO 9001; Cert no.: 11000428; 11000429; 11000427
- LV Process performance motors EN 05-2011 / ABB Motors and Generators

**Test Reports:**

- ABB Type Test Reports, Folder M3AA\_G\_gener.zip

**HAMBURG January 27, 2012**

