



Marine & Offshore  
Division

Certificate number: 23401/B0 BV

File number: ACE 4/864/1

Product code: 2584H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*  
**MOSCA MOTORI SRL**  
MONZA BRIANZA - ITALY

*for the type of product*  
**ASYNCHRONOUS MACHINES (Power below 100kW)**  
Three-phase induction marine motors Power < 100KW  
Series MS and Y2

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships,  
IEC 60034 Series, IEC 60092-301(1995).

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 25 May 2021**

**For BUREAU VERITAS,**  
At BV GENOA, on 25 May 2016,  
Gianni Pirovano



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

#### 1.1 - Three phase Cage Induction Marine Motors - Type MS Totally enclosed

Frame material	: Aluminium
Number of poles	: 2 to 8
Height of frame	: 56, 63, 71, 80, 90, 100, 112, 132
Power supply	: 230 to 690 V 50 Hz
Enclosure en cooling	: IP 55 - IC411
Ambient temperature	: 40°C
Duty type	: S1 to S10
Insulation class	: F
Temperature rise	: B or F

Rated power at S1 with ambient temperature 40°C\*

Motor type	kW 2 poles 50 Hz	kW 4 poles 50 Hz	kW 6 poles 50 Hz	kW 8 poles 50 Hz
MS561	0,09	0,06	/	/
MS562	0,12	0,09	/	/
MS631	0,18	0,12	/	/
MS632	0,25	0,18	0,12	/
MS633	0,37	0,25	/	/
MS711	0,37	0,25	0,18	/
MS712	0,55	0,37	0,25	0,12
MS713	0,75	0,55	0,37	
MS801	0,75	0,55	0,37	0,18
MS802	1,1	0,75	0,55	0,25
MS803	1,5	1,1	/	/
MS90S	1,5	1,1	0,75	/
MS90L	2,2	1,5	1,1	0,55
MS90L1	/	1,85	/	/
MS90L2	3	2,2	/	/
MS100L	3	/	1,5	/
MS100L1	4	2,2	/	0,75
MS100L2	/	3	/	1,1
MS100L3	/	4	/	/
MS112M	4	4	2,2	1,5
MS112M1	5,5	5,5	3	/
MS112MB	/	/	/	/
MS132S	/	5,5	3	2,2
MS132S1	5,5	/	/	/
MS132S2	7,5	/	/	/
MS132ML	/	/	/	/
MS132M	9,2	7,5	/	3
MS132M1	/	9,2	4	/
MS132M2	/	/	5,5	/
MS132L	11	11	/	/

\* : The power indicated in this table can be modified according to ambient temperature and duty type dedicated to the motor

**1.2 - Three phase Cage Induction Marine Motors - Type MS Totally enclosed**

Frame material	: Cast iron
Number of poles	: 2 to 8
Height of frame	: 160, 180, 200, 225, 250, 280, 315
Power supply	: 230 to 690 V 50 Hz
Enclosure en cooling	: IP 55 - IC411
Ambient temperature	: 40°C
Duty type	: S1 to S10
Insulation class	: F
Temperature rise	: B or F

Rated power at S1 with ambient temperature 40°C\*

Motor type	kW 2 poles 50 Hz	kW 4 poles 50 Hz	kW 6 poles 50 Hz	kW 8 poles 50 Hz
Y2-160M	/	11	7,5	/
Y2-160MA	11	/	/	4
Y2-160MB	15	/	/	5,5
Y2-160L	18,5	15	11	7,5
Y2-180M	22	18,5	/	/
Y2-180L	/	22	/	11
Y2-200L	/	30	/	15
Y2-200LA	30	/	18,5	/
Y2-200LB	37	/	22	/
Y2-225S	/	37	/	18,5
Y2-225M	45	45	30	22
Y2-250M	55	55	37	30
Y2-280S	75	75	45	37
Y2-280M	90	90	55	45
Y2-315S	/	/	75	55
Y2-315M	/	/	90	75
Y2-315LA	/	/	/	90

\* : The power indicated in this table can be modified according to ambient temperature and duty type dedicated to the motor

**2. DOCUMENTS AND DRAWINGS:**

Out-line drawings and technical data as per catalogue received 29/09/2010

**3. TEST REPORTS:**

Type test report according to BV Rules Pt C, Ch 2, Sec 4 Table 1 N° 20080809A, Y2-250-0012, Y2-315-009, Y2-160-008  
Degree of protection: report N° 3149-2008 dated 28/11/2008

**4. APPLICATION / LIMITATION:**

4.1 - Application / Limitation of use

According to BV Rules for the Classification of Steel Ships and IEC 60092 series.

4.2 - On board installation & Maintenance requirements

According to BV Rules for the Classification of Steel Ships and IEC 60092 series.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above products are to be supplied by **Mosca Motori SRL** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Mosca Motori SRL** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - **Mosca Motori SRL** has declared to Bureau Veritas the following production site(s):

**Mosca Motori SRL**  
**Via Dei Gelsi 9**  
**20046 Monza Brianza Italy**

**6. MARKING OF PRODUCT:**

- Name plate according to IEC 60034-1

**7. OTHERS:**

7.1 - It is **Mosca Motori SRL Monza Brianza - Italy**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate No. 23401/A0 BV issued on 12 Apr 2011 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*