



Marine & Offshore
Division

Certificate number: 23341/B0 BV

File number: ACE 4/400/11

Product code: 2584I

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
KONCAR-MES d.d.
Zagreb - CROATIA

for the type of product
ASYNCHRONOUS MACHINES (Power 100kW and over)
7ABZ motors series.

Requirements:

BV Rules for the Classification of Steel Ships.
IEC 60034 series (2010).

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: 05 Feb 2021

For BUREAU VERITAS,
At BV RIJEKA, on 05 Feb 2016,
Slaven Celic



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:

The **7ABZ series** are asynchronous motors for Marine applications.

1.1 - Specifications:

Frame material	Cast iron
Number of poles	2 to 8 and multi poles
Frame sizes	280 - 315 mm
Cooling	Air –Cooling method IC 411
Degree of protection of enclosures	IP54 - IP55 - IP56 - IP66
Rotor	squirrel cage
Power supply	220 to 690 V
Frequency	50 Hz and 60 Hz
Speed	750 to 3600 RPM
Insulation class	F
Temperature rise class	B or F
Duty service	S1 to S10 according to IEC standard
Ambient temperature	40°C to 50°C
Rated power at S1 duty*	

1.2 - Approval range:

Motor type	kW 2 poles 50 Hz	kW 2 poles 60 Hz	kW 4 poles 50 Hz	kW 4 poles 60 Hz	kW 6 poles 50 Hz	kW 6 poles 60 Hz	kW 8 poles 50 Hz	kW 8 poles 60 Hz
7ABZ 280M	/	105	/	103	/	/	/	/
7ABZ 315S	110	124	110	124	/	/	/	/
7ABZ 315M	132	149	132	149	/	101	/	/
7ABZ 315LA	160	180	160	180	110	124	/	102
7ABZ 315LB	200	250	200	250	132	149	110	124

* The power indicated in this table can be modified according to ambient temperature, duty type and other factors as per customer request

2. DOCUMENTS AND DRAWINGS:

Technical description, Out-line drawings, Assembly drawing, Data and list of position as per KONCAR-MES documentation N° A44689/A dated 07/2005 and KONCAR MES Catalogue O.K.E.10.00 and 1.K.E.10.00
Technical description ref. A44689/C, dated 14.Sep.2015.

3. TEST REPORTS:

Type tests carried out according to BV Rules Pt C, Ch 2, Sec 4, Table 1
Review of type tests reports N° 1148761 dd 03/10/2008 – 1148753 dd 02/10/2008
Tests report ref. 744901, dated 23.Nov.2015.
Tests report ref. 15 TR 0060, dated 21.May.2015.

4. APPLICATION / LIMITATION:

BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The **7ABZ series** are to be supplied by **KONCAR-MES d.d.** in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.

6. MARKING OF PRODUCT:

- 6.1 - Name plate according to IEC 60034-1
6.2 - \ or @conformity marking, as relevant

7. OTHERS:

- 7.1 - This approval is given on the understanding that the society reserves the right to require check tests to be carried out on the units at any time and that the **KONCAR-MES d.d.**, will accept full responsibility for informing shipbuilders, ship-owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate n° 23341/A0 BV issue on 11.May.2011. by the Society.

*** END OF CERTIFICATE ***