



MARINE DIVISION

Certificate number: 24037/A0 BV

File number: ACE2/17/15

Product code: 2671H

*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*

**ABB STOTZ KONTAKT GmbH**  
Heidelberg - GERMANY

*for the type of product*

### ELECTRICAL MOTOR STARTERS

Manual Motor Starter  
MS132, MO132 series

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships  
IEC 60947-4-1:2009  
IEC 60947-2:2006/A1:2009

*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: 24 Feb 2017**

For BUREAU VERITAS,

At BV HAMBURG, on 24 Feb 2012,

Dirk Hoepfner



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 Division available on the internet site [www.veristar.com](http://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 manual motor starter MS132 and MO132 series are electromechanical protection devices.

#### Range of application:

- Number of poles: 3
- Rated insulation voltage (Ui): 690 V
- Rated impulse withstand voltage (Uimp): 6 kV
- Rated Voltage (Ue): 230V/400V/440V/500V/690V
- Degree of protection: IP20

- MS132-xxx with short-circuit and overload protection.

Type	Operational current range Ie [A]	230V AC		400V AC		440V AC		500V AC		690V AC	
		ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]
-0.16	0.10...0.16	100	100	100	100	100	100	100	100	100	100
-0.25	0.16...0.25	100	100	100	100	100	100	100	100	100	100
-0.4	0.25...0.40	100	100	100	100	100	100	100	100	100	100
-0.63	0.40...0.63	100	100	100	100	100	100	100	100	100	100
-1.0	0.63...1.00	100	100	100	100	100	100	100	100	100	100
-1.6	1.00...1.60	100	100	100	100	100	100	100	100	100	100
-2.5	1.60...2.50	100	100	100	100	100	100	100	100	100	100
-4.0	2.50...4.00	100	100	100	100	20	20	20	20	3	3
-6.3	4.00...6.30	100	100	100	100	20	20	20	20	3	3
-10	6.30...10.0	100	100	100	100	20	20	20	20	3	3
-12	8.00...12.0	100	100	100	100	20	20	20	20	3	3
-16	10.0...16.0	100	100	100	100	20	20	20	20	3	3
-20	16.0...20.0	100	100	100	100	20	20	20	20	3	3
-25	20.0...25.0	50	50	50	50	20	20	10	10	3	3
-32	25.0...32.0	25	50	25	50	20	20	10	10	3	3

- MO132-xxx with short-circuit protection.

Type	Rated instantaneous short-circuit current setting Ii [A]	230V AC		400V AC		440V AC		500V AC		690V AC	
		ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]	ICS [kA]	ICU [kA]
-0.16	1.56	100	100	100	100	100	100	100	100	100	100
-0.25	2.44	100	100	100	100	100	100	100	100	100	100
-0.4	3.90	100	100	100	100	100	100	100	100	100	100
-0.63	6.14	100	100	100	100	100	100	100	100	100	100
-1.0	11.50	100	100	100	100	100	100	100	100	100	100
-1.6	18.40	100	100	100	100	100	100	100	100	100	100
-2.5	28.75	100	100	100	100	100	100	100	100	100	100
-4.0	50.00	50	50	50	50						
-6.3	78.75	50	50	50	50						
-10	125	50	50	50	50						
-12	150	50	50	50	50						
-16	200	50	50	50	50						
-20	250	50	50	50	50						
-25	313	50	50	50	50						
-32	400	25	50	25	50						

### 2. DOCUMENTS AND DRAWINGS:

- 2CDC131021D0201 dated 03.2011; 2CDC131035D0201 dated 06.2011
- 1SAM301101 Rev. a dated 26.06.07; 1SAM300403 rev. a dated 28.08.08;
- 1SAM301102 Rev. b1 dated 30.01.09; 1SAM300404 Rev. a dated 28.08.08; 1SAM300811 Rev. c1 dated 09.03.09
- 1SAD938505-0125 dated November 25, 2011, 1SAD938501-0183 dated November 25, 2011

**3. TEST REPORTS:**

- D2009039 Rev. 1.9 dated 28.07.2009

**KEMA:**

- 2122927.52 and 2122927.53 dated 20-07-2009

**Paconsult:**

- 09-2475A dated 03 July 2009

**SGS CEBEC:**

- 58495801/00 to /15 and 58495802/00 to /12 dated 13.07.2009

**4. APPLICATION / LIMITATION:**

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

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31**

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The manual motor starters **MS132** series are to be manufactured, examined and tested by **ABB STOTZ KONTAKT GmbH** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **ABB STOTZ KONTAKT GmbH** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **ABB STOTZ KONTAKT GmbH** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

**ABB STOTZ KONTAKT GmbH**  
**D-69123 Heidelberg,**  
**GERMANY**

5.4 - Each equipment is to be supplied with manual(s) for installation, use and maintenance.

**6. MARKING OF PRODUCT:**

According to IEC 60947 specification.

**7. OTHERS:**

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 **ABB STOTZ KONTAKT GmbH, Heidelberg, GERMANY**, will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

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