



Marine &amp; Offshore

Certificate number: 08505/D1 BV

File number: ACE 02/127/02

Product code: 2634H

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

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**ABB STOTZ-KONTAKT GmbH**

Heidelberg - GERMANY

*for the type of product*

**CONTACTORS (LOW VOLTAGE)**

MINI CONTACTORS: "MC1A, MC1C" "MC2A, MC2C" and ACCESSORIES.

MINI AUXILIARY CONTACTORS: "MCRA, MCRC" and ACCESSORIES.

### Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60947-4-1 (2018), IEC 60947-5-1 (2016).

*This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 12 Jan 2021**

**For Bureau Veritas Marine & Offshore,**

At BV KATOWICE, on 12 Apr 2019,

Wojciech Lubojanski



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 Marine & Offshore. 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 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 Marine & Offshore 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 electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=quof4aoaxg>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

**MINI CONTACTORS: "MC1A, MC1C, MC2A, MC2C" and Accessories.**

**MINI AUXILIARY CONTACTORS: "MCRA, MCRC" and Accessories.**

#### Characteristics of the Contactor:

Rated insulation voltage (Ui): 750 V  
 Maximum rated operational voltage (Ue): 690 V  
 Rated frequency: 50 / 60 Hz

#### 3-4 Poles Contactors

CONTACTOR	Max Oper. Current		Admissible Power AC3 Cat				
	Non Inductive loads AC1 Cat	Motors<400V AC3 Cat	115V (1Phase)	220V (1Phase)	220-230V (3Phases)	380-400V (3Phases)	500 V (3Phases)
Max Oper. Current	A	A	kW	kW	kW	kW	kW
<b>MC1</b>	20	9	0.56	1.12	2.2	4	4
<b>MC2</b>	20	12	0.75	2	3	5.5	5.5

#### Remarks:

- MC1 and MC2 contactors are constructively IDENTICAL, but rated differently by commercial purposes.
- MC1 are rated for use in AC1, AC3 and AC4 categories, while MC2 is only rated for AC1 and AC3 categories.
- MCR auxiliary contactors are rated for use in AC15/DC13 category.

### 2. DOCUMENTS AND DRAWINGS :

Catalog Ref: DEC1005-US, Ed. 06/18.

### 3. TEST REPORTS :

- N° LBM21U03.VI dated 21/01/2003 as per IEC 60947-4-1 and IEC 60947-5-1.
- N° LBM21C12.1VI dated 29/07/96,
- N° LBM21C07.1VI dated 29/07/96,
- N° LBM21C04.0VI dated 13/12/95,
- N° LBM21C02.0VI dated 05/10/95,
- N° LBM21C09.0VI dated 07/02/96,
- N° LBM21U05VI dated 17/01/2003,
- N° LBM21U06.0VI dated 17/12/2001,
- N° LBM21U01.0VI dated 23/01/95 all as per IEC 60947-4-1.

All the tests were carried out in the Laboratories of GE Power Controls Iberica.

IMQ S.p.A. Test report N° 02AC00925/1 dated 31/01/2003

IMQ S.p.A. Test report N° 02AC00925/2 dated 03/02/2003

IMQ S.p.A. Test report N° 02/LD00054 dated 28/07/2003

IMQ CB Test Certificates N°s: IT-3297 - IT-3228 dated 2003.

### 4. APPLICATION / LIMITATION :

As per BV Rules for the Classification of Steel Ships and IEC 60092 series.

**5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - The CONTACTORS (LOW VOLTAGE) are to be supplied by **ABB STOTZ-KONTAKT GmbH** 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 - **ABB STOTZ-KONTAKT GmbH** 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 - For information, **ABB STOTZ-KONTAKT GmbH** has declared to Bureau Veritas the following production site:

**ABB INDUSTRIAL SOLUTIONS (KLODZKO) SP. ZO. O**  
**UL PILSUDSKIEGO 5**  
**57-300 KLODZKO**  
**POLAND**

**6. MARKING OF PRODUCT :**

According to IEC 60947 specifications.

**7. OTHERS :**

7.1 - It is **ABB STOTZ-KONTAKT GmbH**'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. 08505/D0 BV issued on 12 Jan 2016 by the Society.

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