



Marine & Offshore

Certificate number: 14777/D0 BV

File number: ACE2/17/12

Product code: 2633H

*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*

**CIRCUIT BREAKERS (LOW VOLTAGE)**

Manual motor starter type MS116 with accessories

### Requirements:

BV Rules for the Classification of Steel Ships

IEC 60947-1:2014

IEC 60947-2:2019

IEC 60947-4-1:2018

IEC 60947-5-1:2016

EC Code: 31

*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: 17 Mar 2027**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 17 Mar 2022,

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 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. 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

MS116 series are electromechanical motor protection circuit breakers with accessories.

#### **1.1 - Main characteristics:**

Rated voltage: Up to 690V AC  
 Number of poles: 3  
 Degree of protection: IP20  
 Utilization category: AC-3

#### **1.2 - Variants and short circuit ratings:**

Type	Setting range [A]	Ics/Icu [kA]		
		400V	440V	690V
MS 116 - 0.16	0.1 - 0.16	50/100	50/100	30/100
MS 116 - 0.25	0.16 - 0.25			
MS 116 - 0.4	0.25 - 0.4			
MS 116-0.63	0.4 - 0.63			
MS 116 - 1.0	0.63 - 1.0			
MS 116 - 1.6	1.0 - 1.6			
MS 116 - 2.5	1.6 - 2.5	50/75	10/30	5/10
MS 116 - 4.0	2.5 - 4.0		6/18	2/3
MS 116 - 6.3	4.0 - 6.3			
MS 116 - 10	6.3 - 10.0			
MS 116 - 12	8.0 - 12.0			
MS 116 - 16	10.0 - 16.0		25/50	3/15
MS 116 - 20	16.0 - 20.0	16/16		
MS 116 - 25	20.0 - 25.0	10/16		
MS 116 - 32	25.0 - 32.0	10/16		
		10/16		

#### **1.3 - Accessories:**

Auxiliary Switch Modules	HKF1-11 HK1-11 HK1-20 HK1-02	1 normally open, 1 normally closed contact 1 normally open, 1 normally closed contact 2 normally open contacts 2 normally closed contacts
Signal Contact Modules	SK1-11 SK1-20 SK1-02	1 normally open, 1 normally closed contact 2 normally open contacts 2 normally closed contacts
Undervoltage Tripping Modules	UA1-24 UA1-48 UA1-60 UA1-110 UA1-208 UA1-230 UA1-400 UA1-415	24 V, 50 Hz 48 V, 50 Hz 60 V, 50 Hz 110 V, 50 Hz / 120 V, 60 Hz 208 V, 60 Hz 230 V, 50 Hz / 240 V, 60 Hz 400 V, 50 Hz 415 V, 50 Hz / 480 V, 60 Hz
Undervoltage Tripping Modules with auxiliary switches	UA1-HK-24 UA1-HK-48 UA1-HK-60 UA1-HK-110 UA1-HK-208 UA1-HK-230 UA1-HK-400 UA1-HK-415	24 V, 50 Hz 48 V, 50 Hz 60 V, 50 Hz 110 V, 50 Hz / 120 V, 60 Hz 208 V, 60 Hz 230 V, 50 Hz / 240 V, 60 Hz 400 V, 50 Hz 415 V, 50 Hz / 480 V, 60 Hz
Current Working Tripping Modules	AA1-24 AA1-110 AA1-230 AA1-400	20 - 24 V, 50 / 60 Hz 110 V, 50 / 60 Hz 200 - 240 V, 50 / 60 Hz 350 - 415 V, 50 / 60 Hz

**2. DOCUMENTS AND DRAWINGS:**

- 2CDC 131 025 D0202 dated 08.2014

For D0 version:

- 2CDC131025D0201 dated 07.2019

**3. TEST REPORTS:**

- paconsult: 90/02 dated 11.11.2002.

- ABB STOTZ Kontakt: 4483/08 dated 02.07.2008

- SGS: 58495804/00 to /14 dated 31/03/2011; 58495803/00 to /15 dated 31/03/2011

For D0 version:

- CQC: CN55007 dated Oct. 14, 2021; CN47528-A2/M1 dated Nov. 25, 2020

**4. APPLICATION / LIMITATION:**

4.1 - Bureau Veritas Rules and Regulation for the Classification of Steel Ships

4.2 - Bureau Veritas Environmental Category, **EC Code: 31**

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The Circuit Breakers of type **MS116** are to be supplied by **ABB STOTZ KONTAKT GmbH** and **ABB XINHUI Low Voltage Switchgear Co. Ltd.** 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** and **ABB XINHUI Low Voltage Switchgear Co. Ltd.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

**ABB STOTZ KONTAKT GmbH**

**D-69123 Heidelberg,**

**GERMANY**

and

**ABB XINHUI Low Voltage Switchgear Co. Ltd.**

**Jinguzhou Industrial Development Zone**

**Xinhui District, Jiangmen City**

**Guangdong 529100**

**CHINA**

**6. MARKING OF PRODUCT:**

According to IEC 60947 standards.

**7. OTHERS:**

7.1 - It is the responsibility of **ABB STOTZ KONTAKT GmbH** 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 N° 14777/C0 BV issued on 20 Dec 2016 by the Society.

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