TYPE APPROVAL CERTIFICATE
No. **ELE384509CS**

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

Description	**MANUAL MOTOR STARTER and auxiliary devices**
Type	**MS132; MO132**
Applicant	**ABB STOTZ-KONTAKT GMBH** **Eppelheimer Strasse 82, 69123 HEIDELBERG** **GERMANY**
Manufacturer	**ABB STOTZ-KONTAKT GMBH**
Place of manufacture	**Eppelheimer Strasse 82, 69123 HEIDELBERG** **GERMANY**
Reference standards	**IEC 60947-5-1:2003; IEC 60947-4-1:2000 + Amendment 1:2002 + Amendment 2:2005; IEC 60947-2: 2006**

Issued in **Genoa** on **May 3, 2010**. *This Certificate is valid until* **May 3, 2015**

RINA
Valerio Bonanni

This certificate consists of this page and 1 enclosure (pages 1/3 to 3/3).

Type Approval certifies that a representative sample of the product has been found to meet the applicable design criteria. In the case the Manufacturer intends to modify a certified product, the Society is to be informed on all the contemplated modifications.

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MS132; MO132

Product Description

Manual Motor Starter type MS132-0.16/-0.25/-0.4/-0.63/-1/-1.6/-2.5/-4/-6.3/-10/-16/-20/-25/-32 with thermal and magnetic overcurrent protection and type MO132-0.16/-0.25/-0.4/-0.63/-1/-1.6/-2.5/-4/-6.3/-10/-16/-20/-25/-32 with magnetic overcurrent protection only and auxiliary contacts.

Technical Data

- Number of poles: 3.
- Rated frequency: 50/60 Hz.
- Rated operational voltage (Ue):230V up to 690V.
- Rated insulation voltage (Ui): 690V.
- Rated current (In): 0.1A up to 32A.
- Utilization Category according to IEC 60947-2: A.
- Utilization Category according to IEC 60947-4-1: AC-3.
- Rated short-circuit capacity:

Rated service short circuit breaking capacity (Ics)
Rated ultimate short circuit breaking capacity (Icu)
Rated short circuit making capacity (Icm) **(**)**

Ue (V)	In	Ics (kA)	Icu (kA)
230	0.1A-10A 8A-25A 25A-32A	100 50 25	100 50 25
400	0.1A -10A 8A-25A 25A-32A	100 50 25	100 50 25
440	0.1A-2.5A 2.5A-32A	100 3	100 3
500	0.1A-2.5A 2.5A-32A	100 3	100 3
690	0.1A-2.5A 2.5A-32A	100 3	100 3

(**) Icm (kA) according to Standard IEC 60947-2, Tab. 2.

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Auxiliary contacts

- UA1 Undervoltage release
- AA1 Shunt release

- HKF1-11 Auxiliary switch for front mounting:

Rated insulation voltage (Ui): 250V.
Rated impulse withstand voltage (Uimp): 6kV.
Conventional free air thermal current (Ith): 5A.
Utilization Category: AC-15 & DC-13.

HKF1-11

Ue (V)	AC-15	DC-13
24	3A	1A
120	3A	
125		0.27A
240	1.5A	
250		0.15A

- HK.-.. Auxiliary switches for lateral mounting (at right)
HK1-11
HK1-20
HK1-20L (with lead contacts)
HK1-02
- SK.-..Signaling contacts for lateral mounting
SK1-11
SK1-20
SK1-02
- CK.-. Short-circuit signaling contacts for lateral mounting
CK1-11
CK1-20
CK1-02

- Rated insulation voltage (Ui): 690V.
- Rated impulse withstand voltage (Uimp): 6kV.
- Conventional free air thermal current (Ith): 6A.
- Utilization Category: AC-15 & DC-13.

HK1-11; HK1-20; HK1-20L; HK1-02; SK1-11; SK1-20; SK1-02; CK1-11; CK1-20; CK1-02;

Ue (V)	AC-15	DC-13
24	6A	2A
120	6A	
125		0.55A
240	4A	
250		0.27A
400	3A	
600		0.15A
690	1A	

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TYPE APPROVAL CERTIFICATE
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MS132; MO132

Documents

- CB Test Certificate n° BE-2013 issued on 15.07.2009 (KEMA Test Reports from n° 58495802/00 up to 58495802/12 issued on 13.07.2009).
- CB Test Certificate n° BE-2012 issued on 15.07.2009 (KEMA Test Reports from n° 58495801/00 up to 58495801/15 issued on13.07.2009).
- CB Test Certificate n° NL-16564-A1 issued on 10.08.2009 (KEMA Test Report n° 2122927.53 issued on 20.07.2009).
- CB Test Certificate n° NL-16563-A1 issued on 10.08.2009 (KEMA Test Report n° 2122927.52 issued on 20.07.2009).
- PACONSULT Test Report n° 09-2475A issued on 27.05.2009.
- LOVAG Test Report n° AN 07/2002 issued on 14.02.2002.

Remarks

The product is subject to the compliance with Tab.1 of RINA Rules for the Classification of Ships Pt.C, Ch.3, Sec.6, where applicable, and with the Standards mentioned on the Certificate.

Genoa May 3, 2010

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