

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Motor Starter**with type designation(s)
MS132, MS132-K / MO132

Issued to

ABB Stotz-Kontakt GmbH
Heidelberg, Baden-Württemberg, Germany

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IEC 60947-2
IEC 60947-4-1**Application :****For installations inside switchboards / enclosures onboard ships and offshore units****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Rated voltage (V) 690 AC**
Rated current (A) 0.1 - 32
Frequency (Hz) 40 - 60Issued at **Hamburg** on **2020-08-10**for **DNV GL**This Certificate is valid until **2023-02-18**.DNV GL local station: **Augsburg**Approval Engineer: **Thomas Hartmann**.....
Arne Schaarmann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **262.1-007664-6**
 Certificate No: **TAE00002GZ**
 Revision No: **2**

Name and place of manufacturer

ABB Stotz-Kontakt GmbH
 HEIDELBERG, Germany

ABB Xinhui Low Voltage Switchgear Company Ltd
 529100, JiangMen, GuangDong, China

Product description

Motor protection circuit breaker type: MS132, MS132-K (with Push-in Spring terminals) / MO132 with the following auxiliary devices (MO132 thermal tripping function deactivated):

Current limiter:	S803x-SCL-SR
Aux. Switch front mounting:	HKF1-xx, HKF1-xxK
Aux. Switch attached at right:	HK1-xx, HK1-xxK
Aux. Switch attached at right with lead contacts:	HK1-20L
Signal Switch:	SK1-xx, SK1-xxK
Short circuit Signal Switch:	CK1-xx
Undervoltage release:	UA1
Shunt release:	AA1

Rated Voltage U_e : 690* V AC

U_{imp} = 6 kV

Rated frequency: 40 - 60 Hz

Utilisation category: AC3

Tripping values rated short circuit capacity:

Type	Thermal tripping setting ranges (A)	Rated current I_n / conventional free air thermal current (A)	Rated short circuit instantaneous short-circuit current setting (A)	Rated short circuit capacity $I_{cs} = I_{cu}$ at $U_e=400V$ (kA)	Rated short circuit capacity $I_{cs} = I_{cu}$ at $U_e=690V$ (kA)	Rated short circuit capacity with current limiter* $I_{cs} = I_{cu}$ at $U_e=690V$ (kA)
MS 132-0.16(K)	0.1 - 0.16	0.16	1.25 - 1.87	100	100	-
MS 132-0.25(K)	0.16 - 0.25	0.25	1.95 - 2.92	100	100	-
MS 132-0.4(K)	0.25 - 0.4	0.4	3.12 - 4.68	100	100	-
MS 132-0.63(K)	0.4 - 0.63	0.63	4.91 - 7.37	100	100	-
MS 132-1.0(K)	0.63 - 1	1.0	9.20 - 13.8	100	100	-
MS 132-1.6(K)	1 - 1.6	1.6	14.7 - 22.1	100	100	-
MS 132-2.5(K)	1.6 - 2.5	2.5	23.0 - 34.5	100	100	-
MS 132-4.0(K)	2.5 - 4	4.0	40.0 - 60.0	100	3	50
MS 132-6.3(K)	4 - 6.3	6.3	63.0 - 94.5	100	3	50
MS 132-10(K)	6.3 - 10	10	120 - 180	100	3	50
MS 132-16(K)	10 - 16	16	192 - 288	50	3	50
MS 132-20(K)	16 - 20	20	240 - 360	50	3	50
MS 132-25(K)	20 - 25	25	300 - 450	50	3	50
MS 132-32(K)	25 - 32	32	384 - 576	25	3	50

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* With current limiter S803x-series

Rated voltage auxiliary contacts U_e : 600 / 690 V AC

Application/Limitation

Motor starter with thermal and magnetic release. Applicable for use in an IT-grid (ship's mains) up to 690 V.

Type Approval documentation

Technical info:

ABB Data sheet "Manual Motor Starter MS 132"; ABB catalogue 2CDC131135C0201

Test reports:

Paconsult report no. 09-2475 dated 2009-07-03. SGS reports 58495801/00 to 58495801/15 & 58495802/00 to 58495802/12 issued 2009-07-13. Test report P2649E from ABB according to IEC 60 947-2 dated 03.08.2011. Test report P2997E from ABB according to IEC60947-4-1 and IEC 60 947-2 dated 08.06.2011. Test report CQC: 00901-CB2017CQC-077432-2; 00901-CB2017CQC-077946; 00901-CB2017CQC-077432-1; 00901-CB2017CQC-077947; CN42163; CN42365
PaConsult_18-10034-BE-ESB 100 MS 132; ABB Tests: Glowwire_MS132-K_GW2017001;
Dielectric_after_Environmental_D2018015; Atex MS132-K_Supplement 1_ BVS 14 ATEX E 009;
UL: Plastics_Datasheet_Cover MS132-K_Ultramid B3UGM210;
Plastics_Datasheet_middel_and_botoom_Housing_MS132-K_Wellamid 6600-PA66-GV20 HWVOCP

Tests carried out

Type tests according to IEC 60947-2: Sequence I, II and Annex H and IEC 60947-4-1 Sequence I, II, III and V.

Environmental tests in accordance with CG-0339 / IACS E10: Vibration test, Humidity, Dry heat test, Low temperature test, EMC tests (emission & immunity), High voltage test and Insulation resistance test.

Marking of product

ABB Stotz – Type designation – Voltage – Current – Breaking capacity.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE