



## Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>ABB AG – STOTZ-KONTAKT</b>
<b>Address</b>	Eppelheimer Str. 82, Heidelberg, 69123, Germany
<b>Type</b>	Motor Starters
<b>Description</b>	Motor Protection Circuit Breaker for drives up to 30 kW with additional modules  refer to the Appendix for details
<b>Trade Name</b>	MS116
<b>Application</b>	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 1996.
<b>Specified Standard</b>	EN 60947-1:2007/A1:2011/A2:2014 EN 60947-2:2017/A1:2020 EN60947-4-1:2019/AC:2020-05
<b>Additional Tests</b>	Low temperature test(-25°C/16 hrs)

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This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** LR2004247TA

The Design Appraisal Document TSO-25-047557/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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## Appendix

### TYPES

Motor Protection Circuit Breaker	MS116-#	# = operational current range $I_e$ from 0.16 – 32.0 A
Auxiliary Switch Modules	HKF1-11 HKF1-20 HK1-11 HK1-20 HK1-02	1 normally open , 1 normally closed contact 2 normally open contacts 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	24V 50 Hz 48V 50 Hz 60V 50 Hz 110V 50Hz/120V 60Hz 208 V 60Hz 230V 50Hz / 240V/60Hz 400V/50Hz 415V/50Hz/480V 60Hz
Undervoltage Tripping Modules with auxiliary switch	UA1-HK-24 UA1-HK-48 UA1-HK-60 UA1-HK-110 UA1-HK-208 UA1-HK-230 UA1-HK-400 UA1-HK-415	24V 50Hz 48V 50Hz 60V 50Hz 110V 50Hz/120V 60Hz 208V 60Hz 230V 50Hz/240V 60Hz 400V 50Hz 415V 50Hz/480V 60Hz
Current Working Tripping Modules	AA1-24 AA1-110 AA1-230 AA1-400	20-24V 50/60Hz 110V 50/60Hz 200-240V 50/60Hz 350-415V 50/60Hz