

Type Approval Certificate Extension

This is to certify that Certificate No. 00/20066 (E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	ABB Stotz-Kontakt GmbH Eppelheimer Strasse 82 69123 Heidelberg Germany
PLACE OF PRODUCTION	Werner-von-Siemens-Str. 48 92220 Amberg Germany
DESCRIPTION	Circuit breaker
TYPE	MS450-①, MS451-①, MS495-②, MS496-② and MS497-③ ①= rated current 16 - 50 A ②= rated current 40 - 100 A ③= rated current 16 - 90 A
APPLICATION	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.
DESIGN CODE	IEC 60947-1 : 2007 IEC 60947-2 : 2006 IEC 60947-4-1 : 2000 IEC 60947-5-1 : 2003
Certificate No.	00/20066 (E2)
Issue Date	07 January 2009
Expiry Date	18 August 2013
Sheet	1 of 2



Thorsten Wolff
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71 Fenchurch Street, London EC3M 4BS

Lloyd's Register

"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."

The attached Design Appraisal Document No. ETS 20185-09 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 00/20066 (E1) to which this extension should be attached.

Certificate No.	00/20066 (E2)
Issue Date	07 January 2009
Expiry Date	18 August 2013
Sheet	2 of 2



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Part 2

Circuit Breakers

Producer/ Licence No.	Type	Standard	Rating				Short Circuit	Category/ Additional Tests	Remarks	Cert. No.
			A.C. 50/60/400Hz		D.C.					
			Normal Current Amperes	Voltage	Power Factor	Voltage				
ABB Stotz-Kontakt GmbH Eppelheimer Str. 82 69123 Heidelberg Germany	Circuit breaker Types: MS450-0, MS451-0	IEC 60947-1 : 2007 IEC 60947-2 : 2006 IEC 60947-4-1 : 2000 IEC 60947-5-1 : 2003	16 - 50	240	0.2		100	ENV 1, ENV 2, ENV 3 (1996) Correction factor for ambient air temperature above 60°C is to be obtained from manufacturer's catalogue.	Expiry Date: 18 August 2013	00/20066 (E2)
			16 - 50	400	0.25		50			
			16 - 20	440	0.25		50			
			25 - 45		0.25		30			
			50		0.25		40			
			16 - 25	500	0.3		12			
			32 - 50		0.3		10			
			16 - 25	690	0.7		5			
			32 - 50		0.7		4			
			40 - 100		0.2		100			
			40 - 100	240	0.25		50			
			40 - 100	400	0.25		40			
			40 - 63	440	0.30		12			
			75 - 100	500	0.5		8			
			40 - 63		0.7		6			
			75 - 100	690	0.7		5			
			16 - 100		0.2		100			
			16 - 100	240	0.2		100			
			16 - 100	400	0.25		50			
			16 - 20	440	0.25		30			
25	500	0.3		20						
32		0.25		22						
40		0.3		18						
50 - 63		0.3		15						
75 - 100		0.5		10						
16 - 32		0.3		15						
40	690	0.3		12						
50		0.5		10						
63		0.7		7.5						
75 - 100		0.7		6						

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Part 2

Circuit Breakers

Producer/ Licence No.	Type	Standard	Rating						Short Circuit	Category/ Additional Tests	Remarks	Cert. No.
			Normal Current Amperes	A.C. 50/60/400Hz			D.C.					
				Voltage	Power Factor	Voltage	Time Constant Seconds					
	Rated current ⓪= 16 - 50A Ⓛ= 40 - 100A Ⓢ= 16 - 90A											

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Marine Design Appraisal Document

Lloyd's Register EMEA
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Date
07 January 2009

Quote this reference on all future communications
HPC 0820454/20185-09/TW/hu

**THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002
ISSUED TO: ABB STOTZ-KONTAKT GMBH
FOR: CIRCUIT BREAKER
TYPES: MS450, MS451, MS495, MS496, MS497
TYPE APPROVAL CERTIFICATE NO. 00/20066 (E2)**

The additional undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Form LR6606	Approval Services Request for Quotation	09.09.2008
ETS 19822-08	DAD for Cert. No. 98/20051 (E3)	30.10.2008

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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