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Type Approval Certificate Extension

This is to certify that Certificate No. 94/20054 (E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	VEM motors GmbH			
PLACE OF PRODUCTION	Carl-Friedrich-Gauß-Strasse 1 38855 Wernigerode Germany			
DESCRIPTION	A.C. polyphase induction moto	rs with squirre	el cage.	
TYPES	K10R 112 to 315 K11R 132 to 315			
APPLICATION	Marine, offshore and industria	l use.		
SPECIFIED STANDARDS	EN 60034-1:2004, EN 60034-2:1996, EN 60034-5:2001, EN 60034-7:1993, EN 60034-8:2007, EN 60034-9:2005, EN 60034-12:2002, EN 60034-14:2004			
RATINGS	Rated voltage: Rated frequency: Rated power: Ambient air temperature: Duty type: Class of insulation: Degree of protection: Number of poles: Frame sizes:	220 V to 750 50 Hz, 60 Hz 0.5 kW to 310 45°C S 1 F IP55, IP56 2, 4, 6, 8, 10, 1 K10R 112 132 160 180	0 kW	e) combinations
Certificate No.	94/20054 (E3)			
Issue Date	21 January 2010			
Expiry Date	27 December 2014			2.262
Sheet	1 of 2			Jochen Körner

Lloyd's Register EMEA 71 Fenchurch Street, London EC3M 4BS

Jochen Körner Hamburg Plan Approval Centre Lloyd's Register EMEA

LLOYD'S REGISTER GROUP PAPER



RATINGS CONTINUED	Frame sizes:	K10R	K11R
		200	200
		225	225
		250	250
		280	280
		315	315

<u>Note</u>: Other voltages within the range given are permissible. The current is to be calculated by the reciprocal ratio of the voltages.

"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 22366-09 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 94/20054 (E2) to which this extension should be attached.

Certificate No.	94/20054 (E3)
Issue Date	21 January 2010
Expiry Date	27 December 2014
Sheet	2 of 2

Jochen Körner Hamburg Plan Approval Centre Lloyd's Register EMEA

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Document No: Issue number Page 1 of 2 ETS 22366-09



Marine Design Appraisal Document

Lloyd's Register EMEA Hamburg Design Support Centre Am Sandtorkai 41 20457 Hamburg, Germany Telephone +49 (0)40 328107 - 0 Fax +49 (0)40 328107 - 480 Email: hamburg-design-support@lr.org Date 21 January 2010

Quote this reference on all future communications HPC 0820225/22366-09/JK/MG

THE LLOYD'S REGISTER TYPE APPROVAL SYSTEM, 2002 ISSUED TO: VEM MOTORS GMBH, WERNIGERODE FOR: AC POLYPHASE INDUCTION MOTORS WITH SQUIRREL CAGE TYPES: K10R 112 TO 315 K11R 132 TO 315 TYPE APPROVAL CERTIFICATE NO. 94/20054 (E3)

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

APPROVAL DOCUMENTATION

Request

VEM email

20.10.2009

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.

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

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Document no: Issue number Page 2 of 2 ETS 22366-09 0

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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.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.

Jochen Körner Senior Surveyor Electrotechnical Systems Hamburg Design Support Centre Lloyd's Register EMEA T +49 (0)40 328107-443 E jochen.koerner@lr.org

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

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Form 6438MAR (2008.02)

Part 1 Subject: Electrical Equipment (Not Environmentally Tested) Product: Electric Motors (Part 1B)

		Description of Product					
Producer/Licence No.	Туре	Details of Approval			Application	Remarks	Cert. No.
VEM motors GmbH Carl-Friedrich-Gauß-Strasse 1 38855 Wernigerode Germany	K10R 112 to 315 K11R 132 to 315	Rated voltage: Rated frequency: Rated power: Ambient air temperature: Duty type: Class of insulation: Degree of protection: Number of poles: Frame sizes:	50 Hz, 60 0.5 kW to 45°C S 1 F IP55, IP56	310 kW	Marine, offshore and industrial use.	Expires: 27 December 2014 Note: other voltages within the range given are permissible. The current is to be calculated by the reciprocal ratio of the voltages. Complies with: EN 60034-1:2004, EN 60034-2:1996, EN 60034-5:2001, EN 60034-7:1993, EN 60034-8:2007, EN 60034-9:2005, EN 60034-12:2002, EN 60034-14:2004	94/20054 (E3)

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