

## **Type Approval Certificate Extension**

This is to certify that Certificate No. 94/20054 (E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

**PRODUCER** 

VEM motors GmbH

PLACE OF

Carl-Friedrich-Gauß-Strasse 1

**PRODUCTION** 

38855 Wernigerode

Germany

DESCRIPTION

A.C. polyphase induction motors with squirrel cage.

**TYPES** 

K10R 112 to 315 K11R 132 to 315

APPLICATION

Marine, offshore and industrial use.

SPECIFIED STANDARDS

EN 60034-1:1996, EN 60034-2:1972, EN 60034-5:2000, EN 60034-7:1992,

JIANDANDS

EN 60034-8:2002, EN 60034-9:1997, EN 60034-12:2002, EN 60034-14:1996

**RATINGS** 

Rated voltage:

220 V to 750 V (see note)

Rated frequency:

50 Hz, 60 Hz

Rated power:
Ambient air temperature:

0.5 kW to 310 kW

Ambient an

45°C

Duty type:

S1 F

Class of insulation:

IP55, IP56

Degree of protection: Number of poles:

2, 4, 6, 8, 10, 16, 24 and combinations

are an area of the area of the

Frame sizes:

112 --

132 132 160 160

180

K10R

160 180

K11R

Certificate No.

94/20054 (E2)

Issue Date

15 December 2004

Expiry Date

27 December 2009

Sheet

1 of 2

Hamburg Plan Approval Centre Lloyd's Register EMEA

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



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

Note: 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. HEC 11941-04 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 94/20054 (E1) to which this extension should be attached.

Certificate No.

94/20054 (E2)

Issue Date

15 December 2004

**Expiry Date** 

27 December 2009

Sheet

2 of 2

Jochen Körner Hamburg Plan Approval Centre Lloyd's Register EMEA

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